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10/523,380	02/01/2005	Robin J. Blackwell	GB 030054	3721

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EXAMINER

JAKOVAC, RYAN J

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2145

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,380	Applicant(s) BLACKWELL ET AL.	
	Examiner RYAN J. JAKOVAC	Art Unit 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/21/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-22 are presented for examination.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/523377. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-7, 11-14, and 16-19 contain every element of the instant application and as such anticipates the claims 1-22 of the instant application.

4. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-2, and 20-22 are rejected under 35 U.S.C. 101. Claims 1-2 are directed towards a signal which is non-statutory subject matter. Claims 20-22 are directed towards a computer program which is non-statutory subject matter.

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory (MPEP 2106.01).

Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material *per se* from claims that define statutory inventions.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 2002/0029256 to Zintel et al (hereinafter Zintel).

Regarding claims 1-3, 6, 14, 22 Zintel teaches a method of operation of a networked device, including: transmitting or receiving (104) a simple device description message (230) of defined length (Zintel, abstract, retrieval of device description.), the simple device description message being in the form of a token-compressed message compressed from a human-readable message format (Zintel, abstract, the description is written using XML based syntax.), the message including a device type value representing the type of the other device (Zintel, abstract, description includes model name and number as well as a list of embedded devices.); the device

type value being selected from a device type hierarchy having predetermined top level elements including a controller device type (52) and a basic device type (54) (Zintel, [0069], A Device Definition includes a Device Type Identifier, the fixed elements in the Description Document, the required set of Service Definitions in the Root Device, and the hierarchy of required Devices and Service Definitions.), and at least one further level (68) of subsidiary device types depending from the basic device type (54) and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type (52) (Zintel, [0002]. Zintel relates generally to dynamic connectivity among distributed devices and services, and more particularly relates to providing a capability for devices to automatically self-configure to interoperate with other peer networking devices on a network, such as in a pervasive computing environment.).

Regarding claim 4, 9 Zintel teaches a method according to claim 3 further including the steps of: establishing (102) the address of at least one other device; sending (104) a simple device description query message to the other device or one or more of the other devices requesting a simple device description; receiving (106) from the other device or devices the simple device description message (Zintel, [0061], user control points initiate discovery and communicate with controlled devices. Events are received from controlled devices.).

Regarding claim 5, Zintel teaches a method according to claim 3 further comprising sending (108) an extended device description query message to the other device or one of the other devices requesting an extended device description from the other devices; and receiving

(110) from the other device or the one of the other devices an extended device description of variable length (Zintel, [0061], user control points initiate discovery and communicate with controlled devices. Events are received from controlled devices.).

Regarding claim 7, Zintel teaches a method according to claim 6 further including: determining the extent to which the controller can control the other device by determining the lowest level of device type that either is the device type of the other device or is a higher level device type from which the device type of the other device depends, in the list of device types that can be controlled by the controller (Zintel, fig. 3, 11, 12).

Regarding claim 8, Zintel teaches a method according to claim 7 further including: receiving (120) a controller query message from another device including an requested device type value to request whether the controller is able to control a device of the requested device type (Zintel, [0233], request to control server.); and responding (122) with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends (Zintel, [0234], response to request.).

Regarding claim 10, Zintel teaches a method according to claim 9 wherein the predetermined top level elements in the device type hierarchy further include a composite device type, and the networked device is of the composite device type having the functionality of an integer number of other devices (Zintel, [0062], control points and controlled devices.), the

method further comprising: responding to a received simple device description query message by sending a simple device description message (230) including the device type value (232) representing the device as a composite device and further an integer sub-device number being the number (234) of other devices (Zintel, [0062], controlled devices respond to discovery requests, accept incoming communications from control points and send events to control points. Single devices implement functionality of control point and controlled devices.).

Regarding claim 11, Zintel teaches a system, comprising a plurality of networked devices (200) each having a transceiver (8) for sending and receiving network messages, the networked messages including device description messages identifying the device type of a networked device (Zintel, abstract, retrieval of device description messages. Paragraphs [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices.); wherein each networked device has a predetermined device type selected from a device type hierarchy having predetermined top level elements including a controller device type (52) and a basic device type (54) (Zintel, [0069], A Device Definition includes a Device Type Identifier, the fixed elements in the Description Document, the required set of Service Definitions in the Root Device, and the hierarchy of required Devices and Service Definitions.), and at least one further level (68) of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type (Zintel, [0002]. Zintel relates generally to dynamic connectivity among distributed devices and services, and more particularly

relates to providing a capability for devices to automatically self-configure to interoperate with other peer networking devices on a network, such as in a pervasive computing environment.); at least one of the networked devices is a controller device (2) with the controller device type (52) (Zintel, fig. 2, user control point.); and at least one of the networked devices is a controlled device (4) with a device type of the basic device type (54) or a device type (62,64,66,) depending from the basic device type (54) (Zintel, fig. 2, controlled device, bridge.).

Regarding claim 12, Zintel teaches a system according to claim 11, wherein the plurality of networked devices include at least one simple device without the capability to decompress messages and interpreting directly compressed simple device description query messages (Zintel, [0064], service provider translates between UPnP protocols and protocols used by bridged and legacy devices.) and at least one complex device including a message decompression arrangement (184) for decompressing the messages and a message interpreter for interpreting the decompressed messages (Zintel, [0073-0075], device type identifier, device friendly name, unique device name used by devices in searching and identifying. Also, [0077], user control point uses standard http header.).

Regarding claim 13, Zintel teaches a system according to claim 11 or 12 wherein the predetermined top level elements further include a composite device type (Zintel, [0062], controlled devices respond to discovery requests, accept incoming communications from control points and send events to control points. Single devices implement functionality of control point and controlled devices.); the system includes at least one networked device of the composite

device type having the functionality of a predetermined number of other devices, the predetermined number being an integer greater than or equal to 2 (Zintel, fig. 2, user control point, controlled devices.); and each of the at least one networked device of the composite device type responds to an incoming device query message requiring a simple device description by sending a simple device description (230) including the device type (232) as a composite device and a sub-device number (234) representing the predetermined number of other devices (Zintel, abstract, retrieval of device description including model, serial number, and list of embedded devices.).

Regarding claim 15, Zintel teaches a networked device according to claim 14, wherein the message handler is arranged to carry out the steps of: establishing (102) the address of at least one other device; sending (104) a simple device description query message to another device requesting a simple device description; receiving (106) from the other device the simple device description message of fixed length including a device type value representing the type of the other device and a field indicating whether an extended device description is available (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract.); and further arranged to optionally carry out the steps of: testing the simple device description message to determine whether an extended device description is available; sending (108) an extended device description query message to the other device requesting an extended device description from the other device; and receiving (110) from the other device an extended

device description of variable length (Zintel, abstract, [0061-0062], also [0069], device definition.).

Regarding claim 16, Zintel teaches a networked device according to claim 14 wherein the message handler (26, 182) is arranged to carry out the steps of: receiving a simple device description query message from another device requesting a simple device description; and sending to the other device the simple device description message of fixed length (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract.), the simple device description message being in the form of a token-compressed message compressed from a human-readable message format (Zintel, abstract, the description is written using XML based syntax.).

Regarding claim 17, Zintel teaches a networked device according to claim 16 further comprising a memory (14) storing a predetermined simple device description message precompressed from human readable format, wherein the message handler is arranged to read the predetermined simple device description message from the memory and send it through the transceiver in response to an incoming device query message (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract, retrieval of device description. See also [0133-0134] and table therein. See also, fig. 25, memory.).

Regarding claim 18, Zintel teaches a networked device according to claim 17 wherein the networked device is a controller device (2) comprising a memory (14) containing a list of device types that can be controlled by the controller for determining the extent to which the networked device can control another device of known device type by determining the lowest level device type in the list of device types that can be controlled by the networked device that either is the known device type or is a higher level device type from which the known device type depends (Zintel, abstract, retrieval of device description including list of embedded devices. See also at least figs. 1-2, paragraphs [0002-0003].).

Regarding claim 19, Zintel teaches a networked device according to claim 18 wherein the message handler is arranged to receive a controller query message from another device including an requested device type value to request whether the controller is able to control a device of the requested device type (Zintel, [0233], request to control server.); and to respond with a controller response message including a device type value representing the lowest level of device type in the list of device types that either is the requested device type or is a higher level device type from which the requested device type depends (Zintel, [0234], response to request.).

Regarding claim 20, Zintel teaches a computer program defining a device type hierarchy having predetermined top level elements including a controller device type (52) and a basic device type (54) (Zintel, [0069], A Device Definition includes a Device Type Identifier, the fixed elements in the Description Document, the required set of Service Definitions in the Root Device, and the hierarchy of required Devices and Service Definitions.), and at least one further

level (68) of subsidiary device types depending from the basic device type (54) and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type (52) (Zintel, [0002]. Zintel relates generally to dynamic connectivity among distributed devices and services, and more particularly relates to providing a capability for devices to automatically self-configure to interoperate with other peer networking devices on a network, such as in a pervasive computing environment.), the computer program being arranged to cause a networked device (2,4) to send and/or receive simple device description messages (230) including the device type selected from the device type hierarchy (Zintel, abstract, retrieval of device description including list of embedded devices. See also [0067].).

Regarding claim 21, Zintel teaches a computer program according to claim 20 for controlling a controller-type networked device, the networked device having a transport stack and an application, the computer program comprising: code implementing a transport adaption layer (180) for interfacing with the transport stack; code implementing an application programming interface (186) for interfacing with the application; and code implementing a messaging layer (182) including the capabilities of sending and receiving messages in a token-encoded human readable messaging format, the code being arranged to cause the networked device: to recognise incoming device query messages requiring a simple device description response and to provide a simple device description response including a device type of controller device type; to respond to an incoming controller query message querying whether the networked device can control a predetermined device type by responding with the lowest level of

device type in the list of device types that can be controlled by the networked device that either is the predetermined device type or is a higher level device type from which the predetermined device type depends (Zintel, abstract, retrieval of device description messages. Paragraphs [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices.); and to carry out the steps of: sending a device query message to another device; receiving a response from the other device indicating the device type of the other device (Zintel, abstract, retrieval of device description messages. Paragraphs [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices.), the device type being selected from a device type hierarchy having predetermined top level elements including a controller device type and a basic device type (Zintel, [0069], A Device Definition includes a Device Type Identifier, the fixed elements in the Description Document, the required set of Service Definitions in the Root Device, and the hierarchy of required Devices and Service Definitions.), and at least one further level of subsidiary device types depending from the basic device type and inheriting properties of higher level device types on which the subsidiary device type depends, but not including any further level of subsidiary device types depending from the controller device type (Zintel, [0002]. Zintel relates generally to dynamic connectivity among distributed devices and services, and more particularly relates to providing a capability for devices to automatically self-configure to interoperate with other peer networking devices on a network, such as in a pervasive computing environment.); determining the extent to which the networked device can control the other device by determining the lowest level of device type that either is the device type of the other device or is a higher level device type from which the device

type of the other device depends, in the list of device types that can be controlled by the networked device; and controlling the other device with the functionality of the determined lowest level of device type by sending control signals selected from a list of control signals appertaining to the determined lowest level of device type (Zintel, [0061-0062], communication with UPnP controlled devices including initiating discovery with controlled devices and receiving events from controlled devices. See also abstract, retrieval of device description. See also [0133-0134] and table therein. See also, fig. 25, memory.).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN J. JAKOVAC whose telephone number is (571)270-5003. The examiner can normally be reached on Monday through Friday, 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason D. Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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RJ

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Supervisory Patent Examiner, Art Unit 2145